

National Aeronautics and Space Administration

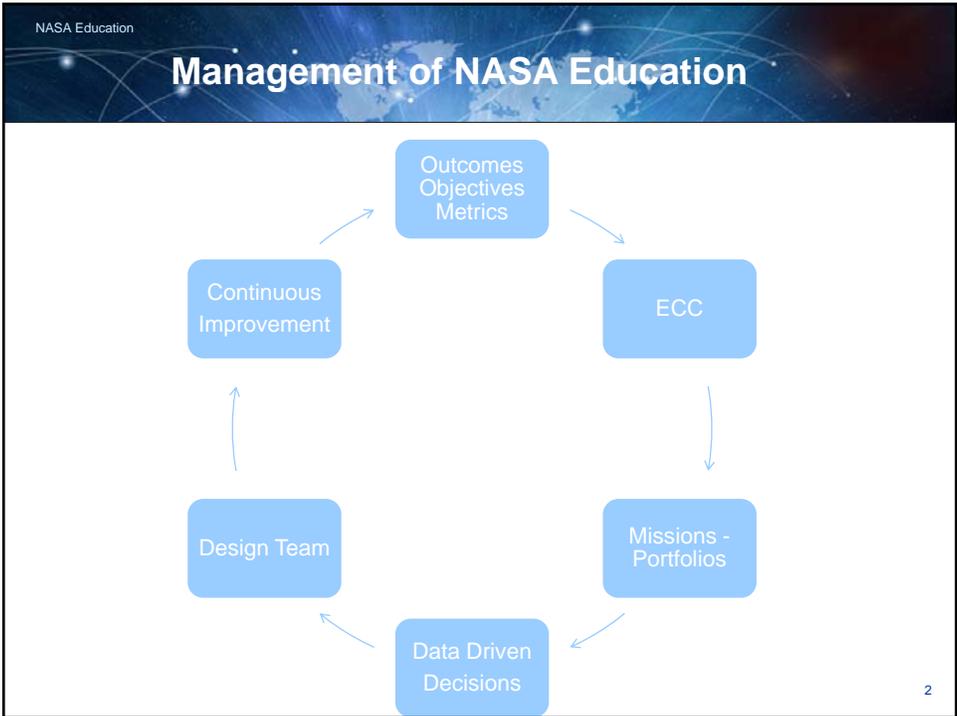


# Education at NASA



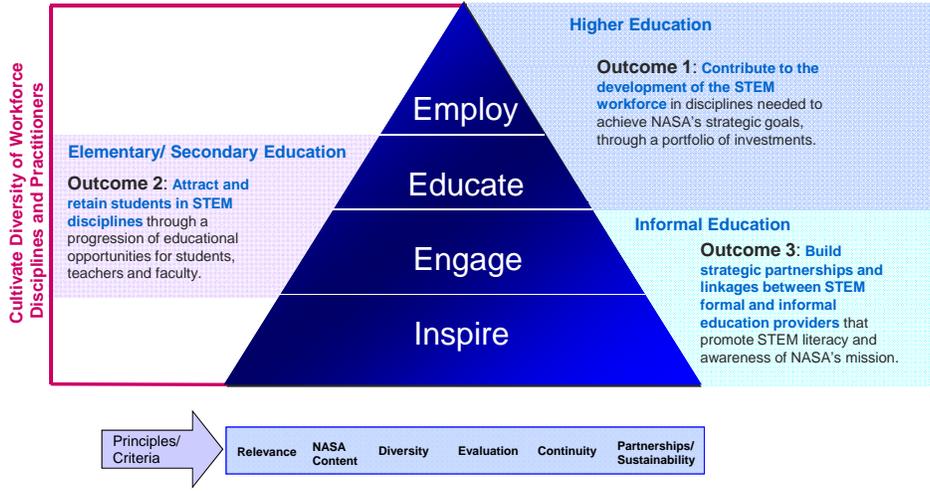
www.nasa.gov

**Dr. Joyce L. Winterton**  
Associate Administrator for Education



# NASA Education Overview

## Strategic Framework



\* Science, Technology, Engineering and Mathematics (STEM)

# Outcomes and Objectives

### Outcome 1: Higher Education

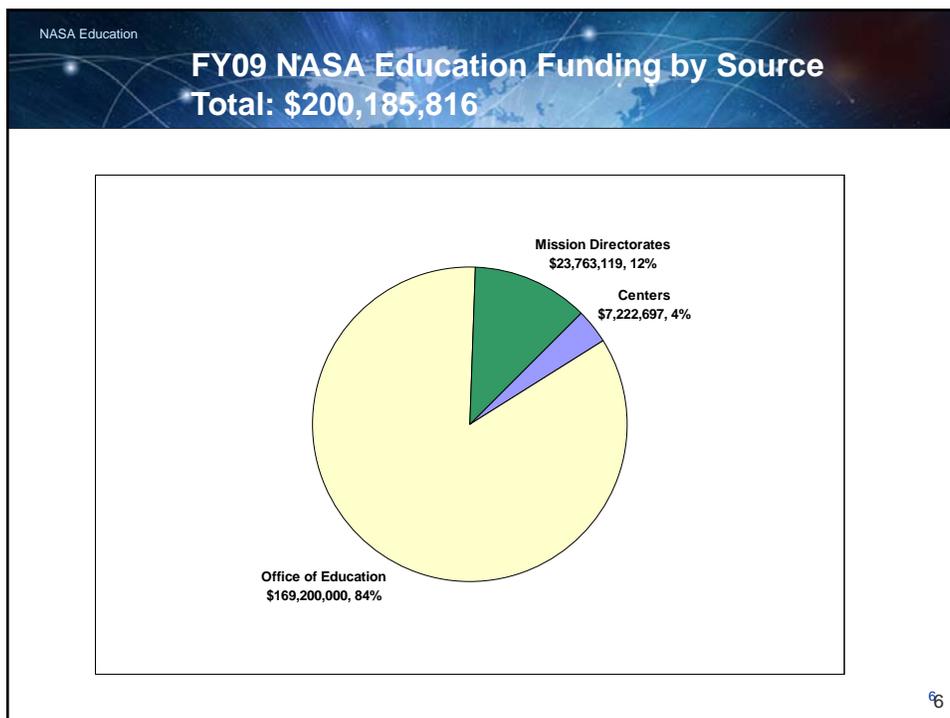
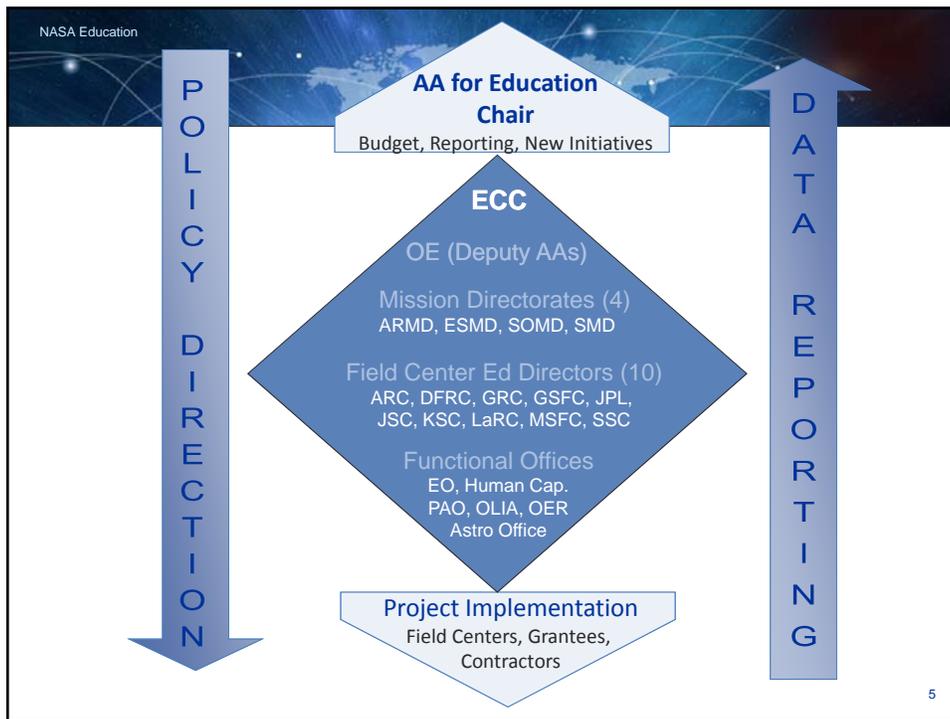
- Faculty and Research Support
- Student Support
- Student Involvement, Higher Education
- Course Development
- Targeted Institution Research and Academic Infrastructure

### Outcome 2: Elementary and Secondary Education

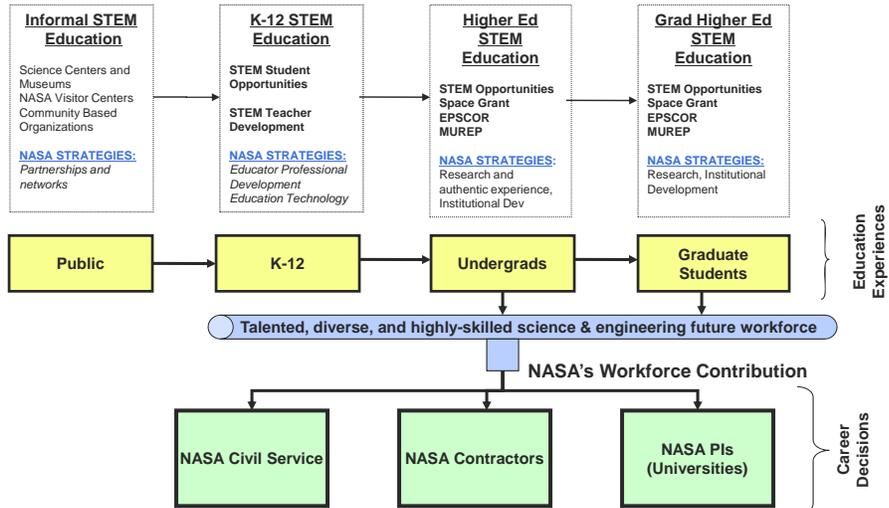
- Educator Professional Development, Short Duration
- Educator Professional Development, Long Duration
- Curricular Support Resources
- Student Involvement, K-12

### Outcome 3: Informal Education

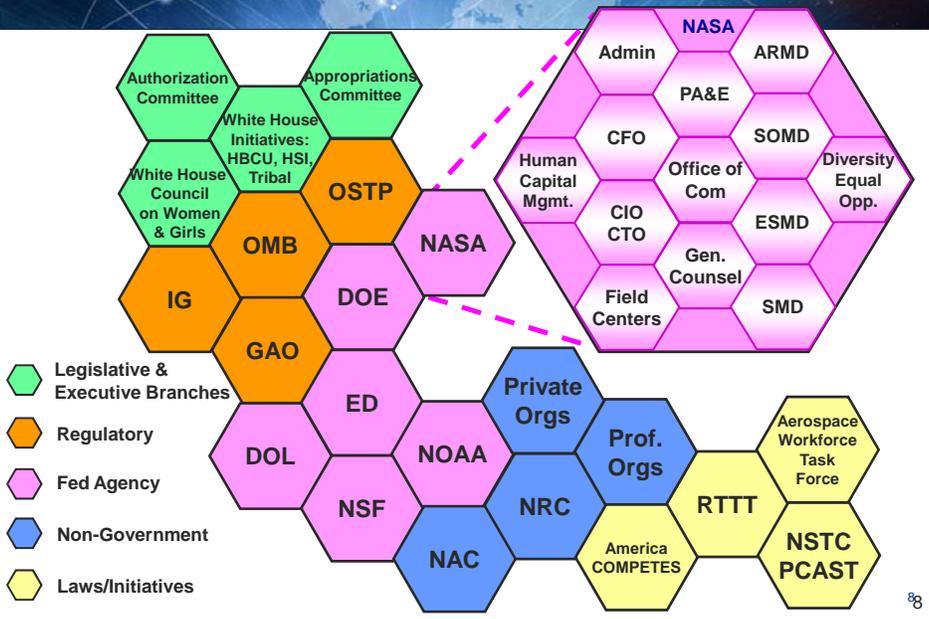
- Educational Support Resources
- Professional Development for Informal Education Providers
- Informal Education Provider Involvement Opportunities

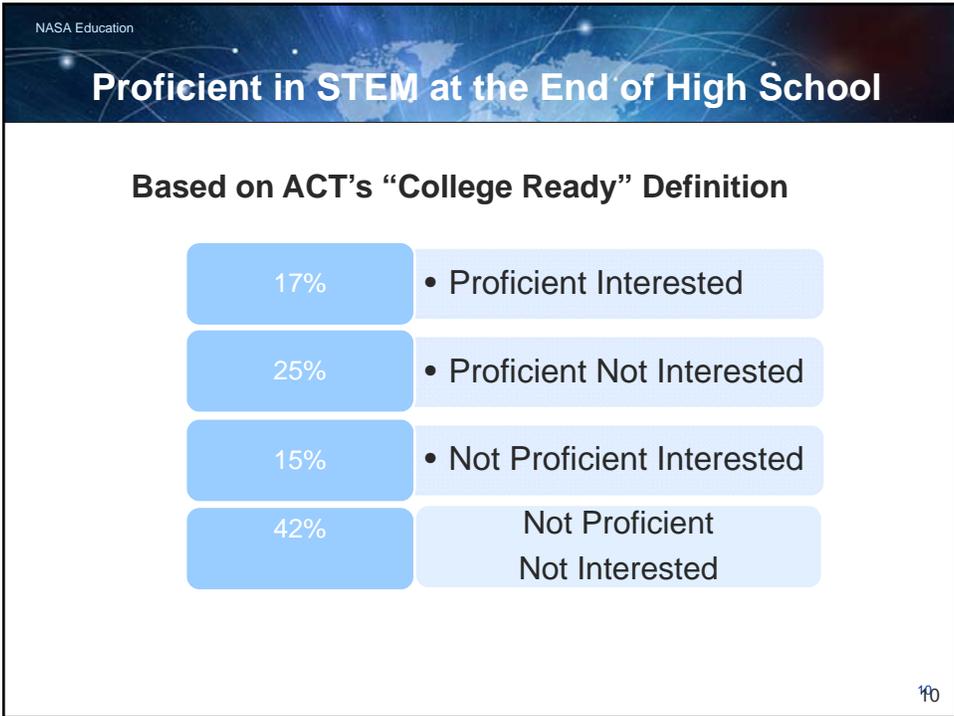


# NASA Education Opportunities



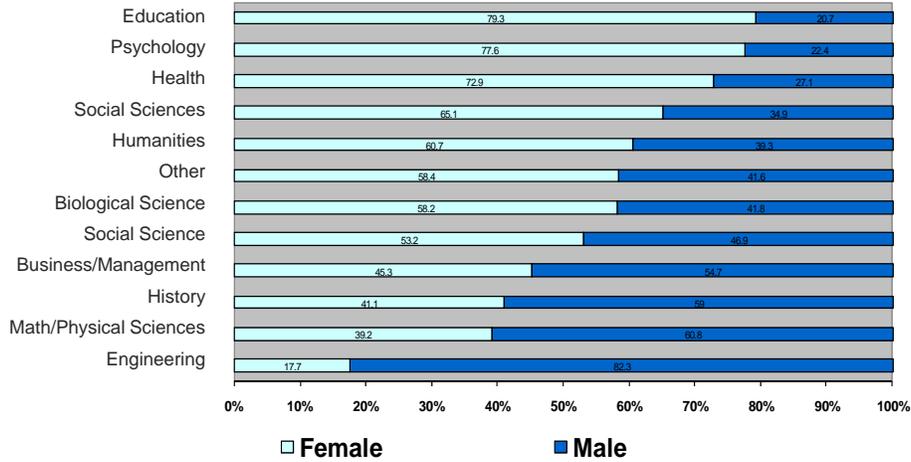
# Key Stakeholders and Influencers





## More Women Need to Enroll in STEM Fields

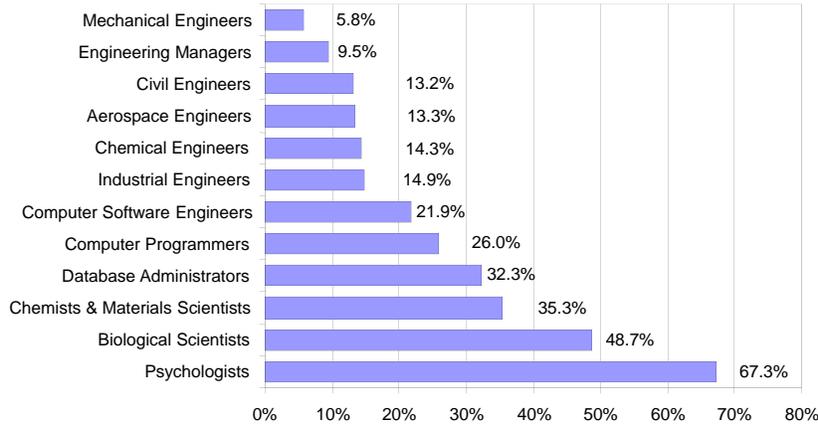
**Proportion of Women in Selected College Majors  
1999-2000 Bachelor's Degree Recipients**



NOTE: Excludes graduates older than 35 at completion of degree.  
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2001 Baccalaureate and Beyond Longitudinal Study (B&B:01). 11

## So That They Can Get STEM Jobs

**Women as a Proportion of Selected STEM Occupations, 2005**



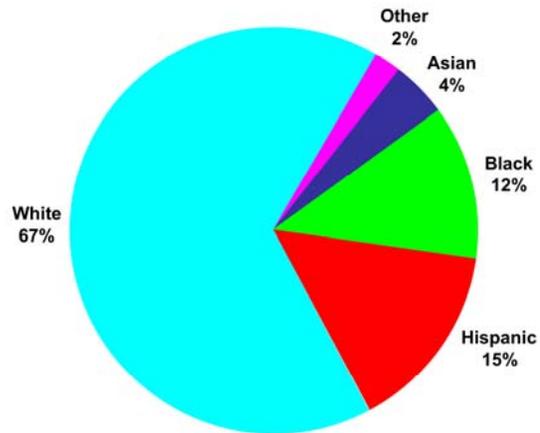
Source: CPST/Professional Women and Minorities Data derived from U.S. Census Bureau, Current Population Survey



## Educator and Astronauts

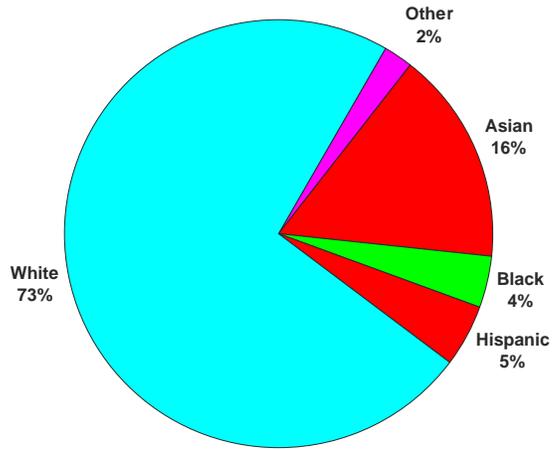


## Resident population of the United States, by race/ethnicity: 2007



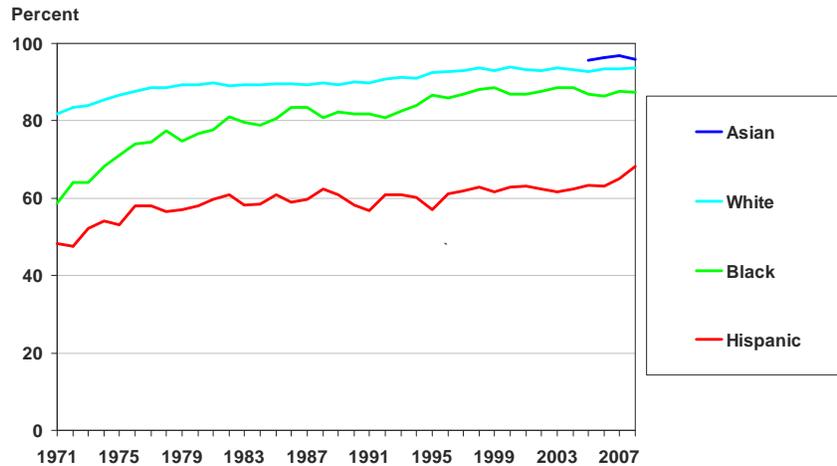
Note: Other includes American Indians/Alaska Natives, Native Hawaiians/other Pacific Islanders and multiple race/ethnicity.  
Source: Bureau of the Census, Current Population Survey, July 2007.

## Employed scientists and engineers, by race/ethnicity: 2006



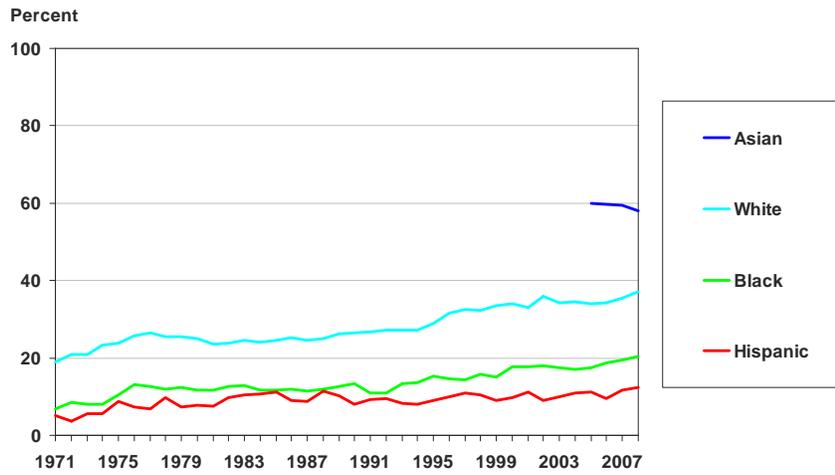
Note: Other includes American Indians/Alaska Natives, Native Hawaiians/other Pacific Islanders and multiple race/ethnicity.  
 Source: National Science Foundation, Scientists and Engineers Statistical Data System, 2006.

## Percentage of 25- to 29-year-olds who completed high school, by race/ethnicity: March 1971-2008



Source: Bureau of the Census, Current Population Survey, March 1971-2008.

## Percentage of 25- to 29-year-olds who completed a bachelor's, by race/ethnicity: March 1971-2008



Source: Bureau of the Census, Current Population Survey, March 1971-2008.



# STRATEGIES



## Your Regional NASA Center



**54,046,681** Page Views - Education website

# 2009 Performance and Recent Highlights/Results



**51%** of Higher Education students are employed by NASA, aerospace contractors and education institutions (+27% other STEM)

**83%** of educators in NASA training use resources in the classroom

**44%** of undergraduate students move on to advanced education

**1,483,362** K-12 students engaged

**400+** Museums and Science Centers are actively using NASA content

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**For Educators**

- ▶ Grades K-4
- ▶ Grades 5-8
- ▶ Grades 9-12
- ▶ Higher Education
- ▶ Informal Education
- ▶ Find Teaching Materials
- ▶ Education TV Schedule

**Office of Education**

Find contact and program information from NASA's Office of Education Web site.

[Education](#)

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**NASA for Students**

Go to the Students section of [www.nasa.gov](http://www.nasa.gov).

[Students](#)

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**NASA eClips**

Video highlighting current research and innovations along with lesson plans that can be used in the classroom.

[View site](#)

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**NASA Podcasts**

Check out the podcasts available from NASA.

[Podcasts](#)

**Educator Features and Articles**

**International Space Station 2009 Calendar**

**12.16.08**

To celebrate the 10th anniversary of the space station, NASA is offering a 2009 calendar that contains photographs taken from the space station and highlights historic NASA milestones and fun facts.

[View](#)

**Butterflies and Spiders in Space**

**The Humans Behind Hubble**

[View Archive](#)

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**Find Teaching Materials**

**Looking for Classroom Materials?**

NASA's Education Materials Finder will help teachers locate resources that can be used in the classroom. Users may search by keywords, grade level, product type and subject. With hundreds of publications and Web sites indexed, the finder is the best way to locate NASA educational resources.

[Find Materials Now](#)

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**NASA Television**

**Education News**

12.31.08  
NASA Kicks Off 2009 First Robotics Season With Live Broadcast

12.30.08  
High School Robotics Competition Kicks Off on Jan. 3

**Education Calendar**

January 2009

			01	02	03
04	05	06	07	08	09
11	12	13	14	15	16
18	19	20	21	22	23
25	26	27	28	29	30
					31

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**A to Z Index**

**Education Programs**

**EXPRESS Email Signup**

**Worldbook@NASA**

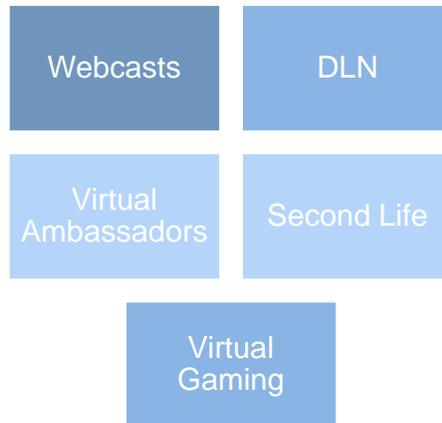
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**NASA KIDS' CLUB**

Play Fun Games

## Utilizing Technology to Expand the Reach

**Interactive Resources Include Collaboration Tools with NASA Experts, Virtual Worlds to Simulate Space Travel, and Online Remote Controls to Scientific Instruments**



## What Are the Key Messages for NASA Education ?

**Goal: Reach the targeted audience with the message that works.....**

**Where and When?**

**Examples:**

**NASA's educational opportunities and what they lead to.**

**Hard work brings personal rewards and achievement.**

**NASA's significance to the Nation and the World.**

NASA Education

## First Steps to a STEM Career

